Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TINKU ACHARYA, YAP-PENG TAN,
PING-SING TSAI and WERNER METZ

Appeal No. 2005-0435
Application No. 09/359,523[1]

ON BRIEF

Before JERRY SMITH, SAADAT and NAPPI, Administrative Patent Judges.
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1-18, which are all of the claims pending in this application.

We reverse.

BACKGROUND

Appellants' invention relates to an image processing method and apparatus. According to Appellants, the raw data captured by

[1] Application for patent filed July 23, 1999.

color balance in the image or to compensate for other effects introduced by the camera or the data such as stray lighting effects, lens flare effects and the nonlinearity of the image sensor (specification, page 1). Appellants use a look-up table for modifying raw pixel data wherein the values of the table may be updated in an iterative calibration process instead of establishing the values of the table (specification, page 3). An understanding of the invention can be further derived from a reading of exemplary independent claim 1, which is reproduced below:

1. A method comprising:

capturing an optical image to form raw data indicative of the optical image;

using values in a look-up table to transform the raw data into transformed data indicative of a second image;

computing a white color balance of the second image; and

modifying the values in the look-up table based on the computed white color balance and the values.

The Examiner relies on the following references in rejecting the claims:

Tamura	4,335,397	Jun. 15, 1982
Takakura	6,421,083	Jul. 16, 2002 (filed Mar. 27, 1997)

Claims 1-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamura and Takakura.

We make reference to the answer (Paper No. 9, mailed April 19, 2004) for the Examiner's reasoning, and to the appeal brief (Paper No. 8, filed February 2, 2004) and the reply brief (Paper No. 10, filed June 24, 2004) for Appellants' arguments thereagainst.

OPINION

With regard to the rejection of claims 1-7, Appellants argue that the values stored in the look-up tables (LUTs) of Takakura are rewritten with the information supplied by an information processing device instead of based on a value previously stored in the table memory (brief, page 10). Appellants further assert that Tamura's system adjusts the color balance of the processed image, not using a LUT, but by counting up or down to tune the value of the red, blue or green components (brief, page 11). Additionally, Appellants argue that one skilled in the art would not be motivated to combine the references since nothing in them suggests updating Tamura's counters with the level-specific offset correction of Takakura so that the values stored in the table memories are modified based in part on the values (brief, pages 13 & 14; reply brief, page 2).

In response, the Examiner asserts that the table memory of Takakura is actually substituted for the gain-control circuits of Tamura causing the color differences to be adjusted and compared to the threshold values (answer, page 4). The Examiner reasons that since adjusting the signal requires changing or incrementing the entry address for a new correction value in the table memory, it is the same as the claimed "modifying the values in the look-up table" (answer, page 5).

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). The Examiner must not only identify the elements in the prior art, but also show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references." In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The court further reasons in Karsten Mfg. Corp. v. Cleveland Gulf Co., 242 F.3d 1376, 1385, 58 USPQ2d 1286, 1293 (Fed. Cir. 2001) that for an invention to be obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of

ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention. See also In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Such evidence is required in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984).

Upon a review of the applied prior art references, we disagree with the Examiner that the claimed "modifying the values in the look-up table based on the computed white color balance and the values" is disclosed or suggested by the combination of Tamura and Takakura. What a reference teaches is a question of fact. In re Baird, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994) (citing In re Beattie, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1041 (Fed. Cir. 1992)). Here, the Examiner ignores the claim requirement that the values in the look-up table are to be modified based on the computed white color balance and the values instead of merely changing the address used to address the memory table for obtaining a new correction value. However, as pointed out by Appellants (reply brief, pages 2 & 3) and based on the teachings of Takakura (col. 9, lines 40-50), the closest the combination comes to suggesting any correction to the values stored in the look-up tables of the gain control circuits of

Tamura is that they be rewritten based on the computed white color balance. In that regard, we agree with Appellants (reply brief, page 3) that such way of modifying the table values by rewriting them is different from the claimed "modifying" and provides no suggestion for generating new table addresses to access a new table offset, or for modifying the values.

Therefore, we remain unconvinced by the Examiner's position that Takakura's rewriting the color balance correction values, sufficiently suggests modifying the table values based on the computed color balance and the values. We note that independent claims 8 and 16 include limitations related to modifying the values in the look-up table in the same manner as recited in claim 1 and discussed above. Accordingly, based on the Examiner's failure to establish a prima facie case of obviousness, the 35 U.S.C. § 103 rejection of independent claims 1, 8 and 16, as well as claims 2-7, 9-15, 17 and 18, dependent thereon, cannot be sustained.

CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 1-18 under 35 U.S.C. § 103 is reversed.

REVERSED

JERRY SMITH
Administrative Patent Judge

MAHSHID D. SAADAT
Administrative Patent Judge

ROBERT E. NAPPI
Administrative Patent Judge

BOARD OF PATENT APPEALS AND INTERFERENCES

MDS/ki

Appeal No. 2005-0435
Application No. 09/359,523

Timothy N. Trop
Trop Pruner Hu & Miles, PC
8554 Katy Freeway
Suite 100
Houston, TX 77024